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THE EDUCATION IN LIBERAL-ARTS COLLEGES OF STUDENTS PREPARING TO TEACH IN PUBLIC AND PRIVATE SECONDARY SCHOOLS[1]

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IT is perhaps unnecessary in a gathering such as this to present any detailed statement of the divergent views that are held in the academic world with regard to the way in which teachers should be prepared for service in the secondary schools. I had occasion not long ago to consult two officials in a state department of education both of whom are clothed with large authority. One of them said that he regards it as absurd that a college graduate who has specialized in mathematics but has taken no courses in education should be denied a certificate to teach in a secondary school. The other official expressed the view—which, by the way, he is in a position to make effective in the state—that an individual ought not to be allowed to teach in a secondary school unless he took in the course of his preparation at least eighteen semester hours of education, including some practice teaching.

The president of a leading college recently complained bitterly that the requirement that students preparing to teach take courses in education makes it impossible for liberal-arts colleges to perform their proper functions because such courses consume the resources which should be spent on the teaching of broad cultural subjects. It is easy to match the criticisms of courses in education with countercriticisms directed against subject-matter courses. Furthermore, the fact can not be overlooked that many advanced courses in subject-matter departments are only by courtesy to be classified as either broad or liberal.

As I have listened to the vehement pronouncements and vitriolic utterances of partisan representatives of the different views held with regard to the proper way of preparing teachers for the secondary schools, I have been led to wonder whether higher education has not fallen a victim to competitions which are as intense as those of the market place. With the introduction into the college curriculum of the large number of subjects which modern scholarship has raised to the level where they can properly claim the attention of college students, the representatives of each particular subject seem to have lost perspective. I hear the scientists scoff at courses in letters, and I hear the representatives of the humanities make remarks about courses in the sciences which are hardly fit to be repeated in public. I see all departments scrambling for the prestige which they believe comes from large numbers of students. Certainly the controversy with

[1] Paper read at the annual meeting of the Association of American Colleges, January 15, 1937.

regard to the preparation of secondary-school teachers which is being waged with heat on both sides shows a lack of ability to solve without prejudice an urgent problem of educational policy.

Let us see whether it is possible to clear the way for the adoption of a rational attitude toward the problem of organizing instruction for prospective secondary-school teachers. We must all be prepared to recognize the fact that history gives us no ready-made solution of the problem. The secondary schools of the present day are new. In 1900 there were only half a million boys and girls in the secondary schools of the United States. There were no junior high schools and no public junior colleges. The curriculum of the secondary schools was limited in scope; the aim of secondary education was chiefly to prepare pupils for further study, usually in college.

In thirty-six years the pupil population of the secondary schools has increased from half a million to between five and six millions. The curriculum has been enormously extended. All kinds of experimental administrative adjustments have been tried out; various plans of school organization designated by such combinations of numerals as 6–4–4, 6–3–3 and 7–2–3 are becoming common. Furthermore, it is now generally recognized that the secondary schools of the United States are not merely institutions for giving instruction in scholastic subjects; they are social experiments dealing with the needs of young people on a stupendous scale. There are no precedents in the history of civilization to which appeal can be made in securing answers to the questions that arise with respect to the proper conduct of secondary schools. Certainly the fact that colleges used to prepare teachers for secondary schools without giving special attention to courses other than those taught by the subject-matter departments can not be accepted as a basis for the conclusion that the present generation of students who are looking forward to teaching careers should rely on subject-matter courses to make them conscious of the opportunities and obligations of the profession which they intend to enter. Any one who insists on holding up the past as a model is overlooking the fundamental changes which recent decades have produced in the American educational system and in American society.

The changes which have taken place in the past thirty years have affected institutions of higher education as well as the secondary schools. Colleges are very different from the institutions of like name of a short generation ago. The number and the variety of courses now offered in colleges make it impossible to say of these institutions that they conform to any pattern which can be referred to by the term "liberal." The junior and senior years of practically all colleges are professional in content and in methods of instruction. The complaint that it is no longer possible to administer a liberal education may be true, but, if it is, courses in education are not the cause of the difficulty. The whole scheme of college education long ago left behind the strictly liberal motive; pre-medical courses, prelegal courses, courses in business, courses in journalism and a host of other professional courses have invaded the one-time liberal curriculum.

It was possible in times past to send graduates of colleges into secondary-school teaching positions with the assurance that they had mastered practically the whole range of subjects which constituted the program of secondary education. Colleges and secondary schools alike adhered to traditions of limited scholarship. There was in the early days only one dimension to profound scholarship; that one dimension was depth. When I attended college, I came into contact with members of the faculty who in their earlier years had held the position of tutor. A tutor was not a

specialist in a single subject; he was supposed to be competent to teach any freshman or sophomore course. He was an instructor at large. He was not infrequently assigned to teach a class in Latin or Greek and another in mathematics. It is difficult for members of present-day college faculties, accustomed to thinking of specialization as synonymous with scholarship, to realize how greatly the concept of learning has changed within the past seventy-five years. As it was in the colleges, so it was in the secondary schools. Teachers were teachers at large. The problem of arranging a schedule of classes was simple as contrasted with the same problem to-day.

In 1900 there were no compulsory school attendance laws that required boys and girls to go to secondary schools. The statement made earlier that the secondary schools of the United States are social experiments can be elaborated by calling attention to those forces in the industrial and commercial worlds which have brought into the secondary schools a host of young people who would formerly have been employed but are now forced by economic conditions to find in schools shelter and the only profitable opportunity that society can provide for the use of their energies.

I sat some time ago in a conference of secondary-school principals and listened to the complaints recorded by these school administrators against the pupils who are forced to attend school and are, as they put it, "quite out of place." It did not seem to occur to these principals that society is in any sense justified in imposing on them the duty of taking care of pupils. Pupils forced to attend school but not interested in the traditional curriculum are, from the point of view of these principals, nuisances, obstructions to the smooth running of the school program, undesirable citizens to be disposed of at the earliest possible moment and by the most expeditious methods that can be devised.

Perhaps enough has been said to call attention to the fact that the organization and management of secondary schools are new and very complicated tasks. We may now turn our attention to the question: How are colleges to meet the new demands which the present social and educational situations impose on them with respect to the proper education of secondary-school teachers?

It is sometimes argued by analogy with the well-established practice of preparing lawyers, physicians and engineers in professional schools separate from the colleges that teachers should get their equipment for their professional duties in special institutions, or in special divisions of colleges, which are devoted to the administration of courses in education. The example of Canada is cited in support of this kind of program of teacher preparation, and the history of the normal schools of the United States is appealed to as evidence that courses in education are professional courses altogether foreign in character to liberal-arts courses.

By way of answer to such arguments, it is to be pointed out that competence in law, medicine or engineering requires the mastery of a large body of subject-matter which extends beyond the curriculum of any college. The art of teaching is different from legal or medical practice and from engineering. The teacher in a secondary school must be versed in subject-matter which is part of the curriculum of every college. Schools of law, medicine and engineering may secure through prelegal, premedical and pre-engineering courses in college the fulfilment of certain prerequisites, but they must of necessity teach much technical material wholly outside the college curriculum.

It is a happy fact that college authorities and those who are in charge of special professional schools have arrived at amicable understandings with regard to the possibilities and advantages of cooperation in spite

of the inevitable separateness of courses in law, medicine and engineering. No one hears colleges of liberal arts railing at schools of law, medicine and engineering. Quite the contrary, colleges are glad to secure the patronage of preprofessional students and to increase their own prestige by associating themselves as closely as possible with professional schools.

It is impressive that, because preparation for teaching is more closely related to ordinary college work than is preparation for other professions, the conflict and friction between subject-matter courses and courses in education are intense. The fact that a teacher of history must know history or that a teacher of mathematics must know mathematics and that there is at the same time need for the teacher to understand something about the organization and conduct of schools creates a unique kind of disturbance. The interest of colleges in giving preparation for the other professions does not seem to be paralleled by an equal interest in preparing students for teaching.

The difficulty here referred to arises in no small measure out of the belief on the part of many members of college faculties that all that a teacher needs to know is subject-matter. Those who hold this belief forget that secondary schools are agencies for the social adjustment of young people. They forget that the population of secondary schools now includes all kinds of pupils, some of whom have scholarly interests, some of whom have interests that lie outside the field of scholarship. Indeed, if one were disposed to answer the advocates of pure subject-matter education by making comments of the kind which they frequently make about education, one might point out the fact that teachers of history and teachers of mathematics have been employed whose knowledge in their respective fields is nothing to boast of. Indeed, cases are on record where teachers of history or of mathematics were in reality athletic coaches.

The comment that many secondary-school teachers are not well educated even in subject-matter is not made for the purpose of stigmatizing either the colleges or the secondary schools. The fact is that the increase in pupil population in the secondary schools of the United States has been so rapid that the generations graduating from college simply have not been able to supply well-qualified teachers. It is almost the exact truth to say that for years before 1920 any one who wanted a teaching position could secure employment. The faculties of secondary schools have of necessity been recruited with only moderate regard for special qualifications of any kind, liberal or professional. It is only in recent years that society has been protected by standards set up and enforced by regional associations and state departments of education.

May I relate an incident which shows how difficult it is for representatives of American institutions of higher education to understand the strain which secondary schools put on the intellectual life of college graduates who become teachers in these schools. At a meeting of the deans of the leading graduate schools of the country the statement was made that in secondary schools members of the teaching staff are often called on to teach several subjects, not infrequently subjects in which they have had little or no preparation. The dean of the graduate school of an institution which boasts one of the most influential departments for the education of teachers and school administrators asked whether there is any available evidence as to the truth of the statement made.

Not only are secondary-school teachers called upon to teach a wide range of subjects; they are also obligated to participate in formulating the curriculum, in giving guidance to pupils and in supervising many

kinds of social activity. To the degree to which pupils require guidance and to the degree to which the secondary school is an agency of social adjustment, teachers must have vision broader than that which can be gained in any special line of study. Any adequate consideration of the duties of secondary-school teachers will make it clear that there should be included in their preparation courses which are designed to turn their attention to a study of the ways in which pupils learn and of the ways in which schools should cultivate social forms of behavior. Courses dealing with professional problems are in no sense substitutes for courses in subject-matter. Nor can courses in subject-matter alone prepare teachers to understand the human problems with which secondary schools have to deal.

I am encouraged to believe that a new era—an era of realistic and rational treatment of the problems of teacher preparation—is at hand. Two of the leading universities of the United States have launched new programs of education for candidates for secondary-school teaching positions. The University of Chicago was one of the first institutions, if not the first, to create a committee which includes representatives of all the departments concerned with the preparation of secondary-school teachers and is an embodiment of the conviction that the university as a whole, not any single department, is responsible for putting the resources of the institution at the service of the secondary schools. At the University of Chicago the senate deliberately took the preparation of secondary-school teachers out of the charge of the department of education and put it in the charge of a general senate committee of the type described. The department of education offers a limited number of courses in education approved by the general committee, leaving the courses in methods of teaching particular subjects and the courses in practice teaching to be given under the supervision of the committee by members of the subject-matter departments.

Harvard University recently adopted a plan which was suggested in President James B. Conant's report for the academic year 1934–35. The plan is described by President Conant in the following paragraph.

> The training of secondary school teachers in Harvard University is a matter of increasing significance which has attracted renewed attention during the past two years. We have at present two distinct methods of providing graduate training for those who plan to devote their lives to the very important task of educating the youth of the country in secondary schools. One method consists of having the prospective teacher enroll in the Graduate School of Arts and Sciences and obtain the degree of master of arts after one or two years of work. As a rule such programs involve only the study of the subject-matter in which the candidate is particularly interested, for example: history or chemistry or mathematics. This method ensures a thorough knowledge of a subject and introduces the secondary school teacher far enough into the realms of advanced work so that he may have the point of view of one who really comprehends the subject he is teaching. The second method by which the university has trained secondary school teachers has been through the Graduate School of Education. Students entering this school have devoted two years to obtaining the degree of Ed.M. In this work they have devoted a considerable amount of time to the study of material concerning education which is presented by members of the faculty of education. In addition, they have taken courses under the faculty of arts and sciences which dealt with the subject-matter to be taught. Usually they have had the opportunity of carrying on some practice teaching. The weakness of this procedure, in the opinion of some people, has been that it did not emphasize sufficiently the acquiring of a thorough knowledge of the particular subject with which the student was concerned. On the other hand, many believe that the program leading to the A.M. has been inadequate for the prospective teacher because no courses in education were provided and there was no opportunity for practice teaching. To my mind it would be highly desirable to combine these two roads of approach to the profession and in the combination retain the advantages of both of the present procedures. It would seem to be proper to have the departments of the faculty of arts and sciences set the standards and examine the candidate's

knowledge of the subject-matter which he proposes to teach and to have the faculty of education have charge of the study of educational material and of apprentice teaching. A committee is now at work studying this whole problem, and I have hopes that, in spite of the many difficulties which must be encountered, a solution along these general lines may be reached during the year. If such a solution can be found, a new degree will be established for those who propose to enter secondary school teaching; the candidates for this degree would be recommended jointly by the faculty of arts and sciences and the faculty of education. In many respects such a change would be an improvement on either the A.M. or the Ed.M. Clearly the importance of secondary school teaching can hardly be overestimated. It was never more urgent to attract able young people into this type of work and provide a careful and thorough training for those who are to educate the boys and girls of the future.

The Association of American Universities recently approved in principle the report of a committee which recommended that other institutions adopt the spirit, if not the form, of the organizations now in operation at Chicago and Harvard. Copies of this report are available to those who are interested. Possibly the Association of American Colleges may be willing, after deliberate consideration of the report, to take action similar to that taken by the Association of American Universities. If such action is taken, it will do much to settle the dispute between representatives of subject-matter departments and representatives of departments of education—a dispute which has long disturbed the peace of colleges and universities and is decidedly unfavorable to the success of secondary schools.

It is not in place for the author of this paper to dictate to subject-matter departments how they shall discharge their obligations to the secondary schools. That there are such obligations which subject-matter departments have grossly neglected is a fact which can not be overlooked.

It is proper for a member of a department of education to take the opportunity afforded by the program organized by the officers of this association to discuss briefly the contents of the courses in education which should be required of all prospective secondary-school teachers. Perhaps a description of the contents of the essential courses in education will contribute to an understanding on the part of members of other departments of the reasons why a complete preparation for secondary-school teaching requires something more than a knowledge of subject-matter.

It will hardly be questioned by any one that teachers ought to have some knowledge of the way in which the minds of young people work. It is not asserted that the only method of gaining insight into the psychological processes through which young people learn is to take a course in educational psychology. Many an experienced teacher has acquired much knowledge with regard to learning processes through observation of pupils and through trial and success in helping learners to overcome the difficulties which they encounter. It is, however, legitimate to urge that a course in educational psychology prepares the prospective teacher to observe far more intelligently than he otherwise would. Such a course also directs attention to many known facts which are not likely to come into the explicit consciousness of the ordinary observer. The science of psychology, like all systematic sciences, is a composite or epitome of the observations and insights of many workers. The facts which have been discovered about the mental life of pupils in general when known to the individual teacher prepare him to make intelligent progress in analyzing the cases which arise in the course of his efforts to perform his professional duties.

It is true that there are serious disagreements among psychologists and that sometimes teachers-in-preparation are confused by the controversies waged between psychological experts. The science of psychology, dealing, as it does, with the most complex

phenomena in the universe, has a long way to go before it can point with assurance in every case to the path which the learner should travel and to the way in which the teacher should proceed. With all its shortcomings, however, educational psychology is a very stimulating subject for a student who expects to teach. Furthermore, it meets all the criteria of scholarship set up by the most extreme advocates of a liberal-arts curriculum. It can take a defensible place in any college program. As a means of preparing for secondary-school teaching, it has the double advantage of contributing to both general education and professional education.

A second essential course in the field of education, the contents of which are less fully agreed upon by members of departments of education than are the contents of educational psychology, has as its purpose the cultivation of an intelligent attitude toward the social and organizational problems of the school. A teacher in a secondary school who is to be something more than a dispenser of information in a narrow field of knowledge or in a few narrow fields must know what the American people are trying to accomplish through the public school system. An understanding of the social purposes of the secondary school and of its institutional characteristics can be gained in many different ways. Conceivably, these purposes and characteristics might be learned in a course dealing with the history of education. They might be learned in a course which makes a comparative study of the schools of many countries. They might be learned in a course dealing with cultural ideals or in a course dealing in a general way with social institutions.

Courses of the various types suggested in the list of possibilities mentioned in the preceding paragraph are in fact administered by different departments of education in the colleges and universities of the United States. Personally, I advocate, and have participated in the organization of, an introductory course called "The American Educational System." Some years ago I and a number of my colleagues attempted to give an introductory course in the form indicated by the title which we used at that time, namely, "Introduction to the Scientific Study of Education." I have not thought highly of courses in the history of education because I have observed that the tendency in such courses is to emphasize forms of organization so remote from those which teachers in American schools encounter that teachers-in-preparation are confused rather than helped. An introductory course in education, whatever its form, should correspond in character and scholarly exactness to a good course in political science or a good course in social institutions. If it reaches this standard, it can be defended as a part of any college curriculum.

The details which I have presented will, I hope, make it clear that I am not setting up departments of education either as dictators or as models. I have heard the department of which I am a member criticized on the ground that it tries to tell other departments how to give instruction in their fields. Sometimes departments of education are criticized because their members are not the best teachers on the campus. It seems to be in the minds of some of our colleagues that we in education regard ourselves as the custodians of the secondary schools and of all that pertains to these schools. The fact is that we are students of a particular group of institutions—the schools—and of the factors which contribute to the success or failure of these institutions. We have found that it is very difficult for American secondary schools to perform their functions because many of the intellectual leaders of the nation are blind to their needs. We have found that devotion to extreme specialization on the part of college and university

teachers is ruinous in its effects on secondary education. We have found that, if the secondary schools of this country are to be properly conducted, they must not be treated as though they could assimilate as teachers all the graduates of a system of higher education which is dominated by the principle of narrow specialization. Very often the members of departments of education are compelled to cry out against the unsympathetic exploitation of secondary schools by members of college and university faculties who are more intent on securing jobs for their students than they are on serving the public. If it is unpopular for members of departments of education to attempt to arouse colleges and universities from their dogmatic slumbers and to wake them up to the vital problems of secondary education, the unpopularity will probably have to be endured for a generation or possibly more. In the meantime, it is consoling to know that convictions are gradually gaining acceptance which will shortly change the situation.

May I quote from the report to which reference was made earlier—the report approved by the Association of American Universities. That report contains among other paragraphs the following:

> Most colleges and universities send many of their graduates into the faculties of secondary schools. The extent to which liberal-arts colleges are in fact teachers' colleges is revealed by a finding reported by a commission of the Department of Superintendence of the National Education Association. In 199 typical liberal-arts colleges, 45 per cent. of the graduates of the years 1923–27 entered the teaching profession, the great majority in secondary schools. Because of the desire to secure as students those who are preparing to teach, colleges and universities have during the past three decades very generally developed extended programs of instruction in education . . .
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> In general, the work given in education in liberal-arts colleges and universities is isolated within the institution. In some cases the isolation is complete; a separate professional school of education is organized and is as sharply set off from the liberal-arts departments as is a school of law or a school of forestry. Difficulties arise in such cases because the subject-matter courses which students preparing to teach must have are those which the liberal-arts departments are giving. The most vicious form of isolation of the school of education is that in which this division of the institution duplicates the work of departments in the liberal-arts division.
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> There is one extremely discouraging feature of the situation which must be mentioned. Teachers of academic subjects in colleges and universities have fallen into the habit of criticizing the secondary schools from which their students come as incompetent and as operating with very low standards. At the same time that they are voicing these criticisms these teachers of academic subjects refuse to face the social problems which the secondary schools must try to solve in a country such as this, which is attempting to make education above the elementary school universally available. If secondary schools are open to criticism, it should be the duty of all departments in colleges and universities, not of the department of education alone and certainly not of teachers' colleges alone, to contribute to the betterment of the situation.

Again I venture to suggest to this association that it study carefully the report approved by the Association of American Universities. I know of no better way in which to close the argument of this paper than to quote in full the summary at the end of that report.

> By way of summary and amplification of the points which have been made in this report, the Committee submits a number of statements which it believes the Association of American Universities might advantageously adopt as guides to its member institutions in organizing programs for the preparation of secondary-school teachers.
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> 1. The trend toward the requirement of study beyond the baccalaureate degree for all teachers in secondary schools is to be highly commended.
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> 2. A systematic program of study beginning with the junior year of college should be recommended to all candidates for teaching positions in secondary schools. Such a program should be based on a broad foundation of cultural studies largely completed by the end of the sophomore year. It should include (*a*) preparation in one or more fields of study rather than intensive specialization in a single department and (*b*) special professional preparation adequate to insure that the candidate will be able to conduct secondary-school classes intelligently.
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> 3. Each institution engaged in the preparation

of secondary-school teachers should undertake a study of the problem of assisting secondary schools in the light of its local conditions. Such a study should be a joint effort on the part of members of subject-matter departments and those interested in, and acquainted with, the professional aspects of education.

4. Educational institutions which prepare teachers for secondary schools should be equipped to give courses of high scholarly grade. Such institutions should insure the cultivation in students of a professional attitude and a profound respect for the teaching profession.

5. No institution which tolerates lack of coordination, or exchange of petty recriminations, between the departments concerned with the preparation of secondary-school teachers should be regarded as competent to prepare teachers.

EDUCATIONAL EVENTS

THE NATIONAL SOCIALIST SCHOOLS OF GERMANY

ACCORDING to a wireless report to *The New York Times,* signed by Otto D. Tolischus, Chancellor Adolf Hitler issued on January 19 the following decree: "Following a report by the Reich Organization Director and the Youth Leader of the German Reich, I approve that the National Socialist schools, which are also to be preparatory schools for National Socialist Order Castles shall bear my name.—Adolf Hitler."

Mr. Tolischus continues: "This laconic pronouncement is the legal authority for a 'school reform' that is more accurately characterized as a revolution. It aims at nothing less than the establishment of a separate and purely political school system under the sole auspices and control of the National Socialist party for the training of future 'leaders of State and party.'

"The implication is that attendance at these schools will become a condition for future political and official careers, which means that from these schools is to come the future aristocracy of the National Socialist Order State. The rest of the coordinated school system is to be left to the new commoners for purposes of technical and general education.

"It is perhaps necessary to explain that the word 'order' is used here in the sense of a fraternity of men devoted to the same purpose or rule of life, such as the Catholic orders, or, more appropriately, the medieval knightly orders like the order of Teutonic Knights, on which, in fact, Dr. Alfred Rosenberg, inspector general for ideological indoctrination of the German people, is trying to model the Nazi party and therewith the whole Third Reich.

"Hitler's decree was supplemented by a joint statement by Baldur von Schirach, Hitler Youth leader, and Dr. Robert Ley, Labor Front leader (who is also the Reich organization director mentioned in the decree) outlining preliminary plans for the new school system.

"According to these plans, those boys who have particularly distinguished themselves in the Hitler Youth organization, into which all German boys and girls are now being drafted, will be admitted to 'Adolf Hitler Schools' after completion of their twelfth year. Here they will go through six classes of one year each, which will bring them to the age of 18, at which they leave the Hitler Youth and are able to join the labor service and the army, where they serve a total of two and one-half years.

"Following their discharge from the army the best graduates of the Adolf Hitler Schools will be admitted to 'National Socialist Order Castles,' picturesquely located in rural or mountainous surroundings. Here they will be termed 'Junkers,' as were the knighthood aspirants in the Middle Ages, and here the future rulers will receive their final polish in the art of government. They will lead a strenuous but abundant life, which will include that aristocratic touch that will give them self-confidence. They will have their horses and their hunting grounds.

"The Adolf Hitler Schools, which are to begin operating at the start of the new school year at Easter, are to be controlled by the Hitler Youth organization. The National Socialist Order Castles, already operating, are controlled by the party itself. Most of them are free, and the admission test is neither rank nor station in life but National Socialist enthusiasm.

"In both institutions, however, training in the Nazi Weltanschauung [outlook on the world] is to be the most important part of the curriculum, which means, in line with Dr. Rosenberg's views,

that the Christian religion is likely to get short shrift."

CLEVELAND'S OUT-OF-DOOR PROGRAM

THE Cleveland Museum of Natural History, according to *Museum News*, has developed a program of out-of-door educational work that includes nature trails, wild-flower trails, trailside museums, out-of-door lectures, bird walks, conducted trips in the parks for school classes and other groups and field work for a university summer class. Four nature trails are maintained by the museum. A trailside museum, opened in 1931 in the North Chagrin Reservation, conducts an educational program based on interpretation of the typical beech-maple climax forest which surrounds it. The average annual attendance has been 24,700. A second trailside was opened last summer in a northern Ohio flood-plain forest setting. A wild-flower trail, opened in 1932, leads through a collection of practically all the 69 species of herbaceous and low shrubby plants native to the beech-maple woods of this locality. Labels are maintained from the beginning of growth in early spring until the plants disappear from above-ground. A second wild-flower trail is planned for opening in 1937 for labelled display of flood-plain species. Outdoor Sunday afternoon lectures are given in connection with wild-flower and trailside museum programs. Six bird walks conducted simultaneously are held during the migration season, in April and May, Sunday mornings from 6:45 to 8. Conducted trips by appointment are given for public school classes, garden clubs, boy scouts, teachers' groups, college clubs, Sunday-school classes and parent-teacher associations. The museum also, by a cooperative arrangement with Western Reserve University, conducts field work on the flora and fauna of the region for university summer-session classes.

THE DEERING, NEW HAMPSHIRE, COMMUNITY CENTER

The New York Times states that Boston University has received an unusual gift with the new year in the presentation of the Deering Community Center.

This community project, started eight years ago by Dr. Eleanor A. Campbell, of New York City, has been an effort "to cultivate in a countryside settlement some of the elements of happy living and well being not usual in many communities."

The center will be a rural community and training center under the School of Religious and Social Work. According to President Daniel L. Marsh, Dr. Campbell has invested more than $100,000 in the project.

Dr. Campbell is a graduate of the Boston University School of Medicine, is a member of the Boston University board of trustees and is founder and a director of the Judson Health Centers in the lower East Side of New York City.

According to Dean Henry H. Meyer, of the School of Religious and Social Work, there is no other project of the kind affiliated with a university. The present board of directors of the center will act as an advisory group and retain full control and responsibility until the formal transfer of the property is made to Boston University on June 1.

The board of directors includes William J. Doherty, ex-Commissioner of Health of Brooklyn, N. Y.; Dr. A. W. Beaven, president of Rochester Theological Seminary; Dr. Daniel A. Poling, pastor of the Central Reformed Church, Philadelphia, and many New Hampshire and Massachusetts ministers and physicians.

The grounds of the center include 120 acres, located six miles from Hillsboro on the east and twenty-five miles northwest from Manchester, N. H. There are more than thirty buildings on the property.

Dr. Campbell, who has been a summer resident of Deering for many years, established the center as a memorial to her daughter, Elizabeth Millbank Anderson. One of the several enterprises is a daily vacation school, which is attended by more than 300 children from surrounding towns during two months each summer.

THE FIVE-YEAR PLAN OF BROWN UNIVERSITY

PROFESSOR C. EMANUEL EKSTROM, chairman of the department of education of Brown University, reports that the success of the "five-year plan" of teacher preparation is shown by the increasing number of schools which ask the university to supply teachers, and in the high percentage of students trained in education at the university who now hold responsible positions.

Since this plan of teacher preparation was started, giving students not only knowledge of educational theory, but also experience in the art of teaching, the number enrolling for this type of training has more than doubled. All students who satisfactorily complete this training are said to be virtually assured of positions.

The Brown plan differs primarily from methods at other colleges and universities by providing five years of study instead of the usual four, with all practice teaching confined to the fifth year. Fifth-year students must hold bachelor's degrees, with preliminary training in education, and be enrolled in the Graduate School as candidates for master of arts degrees.

Practice teaching, arranged by cooperation of school committees in Providence and near-by communities, constitutes the field work of one of the fifth-year courses—"Practical Problems of Teaching." Final grades in this course are determined largely by how well each student conducts his classes. Other courses, in education and in fields in which the student will teach, can be chosen from a variety of subjects.

Other essentials of the plan call for general supervision of all student teachers by Professor Gilbert E. Case, a member of the departmental faculty. Public-school teachers, under whom students get their experience and guidance, work with only one student at a time, and for an entire year; conferences with student teachers are held weekly for coordinating educational theory with practical teaching problems; individual contacts between Professor Case, the supervising teachers and the student practice teachers are frequently arranged at the schools, not only as a check on the student's progress, but to assist him with classroom problems. Twice during the year each student teacher is rated for personal qualities, class management and teaching ability.

Professor Ekstrom states that actual teaching by students averages from 12 to 15 hours a week, with each student taking the same three classes daily. Conducting the work of these classes for an entire year gives the student teacher experience in planning and carrying out a complete course, adapted to the specific problems of each class. The student has the continuous assistance of a supervisor in planning and conducting lessons and is expected to attend a daily class which his supervisor gives, and to work with him in planning courses. Having responsibility for only one practice teacher, the supervisor can give his single "pupil" the fullest possible attention.

THE EDUCATIONAL ACTIVITY OF NORTHWESTERN UNIVERSITY

NORTHWESTERN UNIVERSITY, through the medium of its various educational and clinical agencies, rendered direct service to more than 500,000 citizens of Illinois during 1936, according to its report for the calendar year.

The state-wide scope of its educational activity was shown by the fact that 85 per cent. of its 18,410 registered students reside within the state. The extension work of the university, consisting of lectures and other services by the faculty, included most of the cities and towns of the state. The total enrolment is divided into the following divisions: full-time, 6,109; evening and other part-time students, 8,256, and summer session, 4,045.

Clinics gave aid to thousands of persons. The medical, dental and legal clinics served approximately 80,000 persons in the Chicago area alone. Over 150,000 case visits were made to the medical clinic by nearly 45,000 persons. The legal clinic served 25,000 and the dental clinic, 11,776. On the Evanston campus the clinic for the deaf, the speech clinic and the psychology clinic for children served several thousand.

The Scientific Crime Detection Laboratory widened the scope of its activities by sponsoring a conference for state's attorneys to acquaint these officers with the latest advances in crime detection. The laboratory cooperated with the police departments of many cities by conducting 600 lie-detector tests, handling 150 handwriting cases and 25 fire-arms identification analyses.

Installation of a Traffic Safety Institute during the year placed the university in a position to select and train police officers in traffic work as well as supervise the installation of equipment for accident prevention bureaus. Nine such bureaus were installed during the year. Three traffic officers' training schools were also held.

Campus organizations, such as the university theater, the a capella choir, the symphony orchestra and the band, gave public performances and concerts before 25,000 persons. Public lectures including the Contemporary Thought

Series of the Medill School of Journalism and the University College lecture series were attended by 40,000 persons.

Extra-curricular courses were of service to over 5,000. Among these were the Institute for Commercial and Trade Organization Executives, the Mid-West Institute of International Relations, the National High School Institute and the Summer Coaching School.

Seven educational conferences, such as the Church and Choral Music Institute and the Conference of Junior College Administrators, were held, attracting 1,950 persons. Loan service on books, plays and other items was given to 5,475.

Service of an indirect nature was provided in the form of 176 radio programs participated in by 232 faculty members. Sixty-eight books and 717 articles were written by members of the faculty.

THE DEPARTMENT OF HEALTH AT YALE UNIVERSITY

THE scope of the work of the Yale Department of University Health, which has general supervision of student health, including physical education, definitely increased last year, according to a university bulletin. This increase was especially marked in the medical, surgical and physical therapy departments. There were 21,045 medical consultations; 6,327 surgical consultations and 4,885 physical therapy consultations.

All entering students were tested with an improved form of tuberculin called "purified protein derivative." The total number of undergraduate freshmen tested with tuberculin was 846, of whom 42.4 per cent. reacted positively. The number of entering students from all other departments was 608, of whom 56.9 per cent. reacted positively. For the combined number the percentage of positive reactors to tuberculin was 48.4. The comparable figures for the year 1931–32 were 53.9 positive for freshmen, 71.7 positive for graduate students, or a combined percentage of 62.1 positive. The bulletin points out that "This marked drop in positive reactions to tuberculin presumably indicates a lessened exposure to which this group has been subjected, and is consonant with results in other universities where this procedure is carried out."

Under the guidance of the department, 3,780 students last year took exercise for a total of 214,417 periods. The freshman program included instruction in correct body mechanics, optional sports and exercises as well as tests and instruction in leisure skills and games. The results of the tests given in recreational sports showed that 810, or 92 per cent., could swim; 316, or 37 per cent., could play golf, and 368, or 44 per cent., could play squash. All the 846 members of the freshman class, with the exception of sixteen who were excused by the department, could swim before the year was over.

Following the orthopedic examinations of the freshman class, 533 men were assigned to take corrective exercises. Before the end of the compulsory period, 66 per cent. of the total group were released. Of the entire number taking the corrective exercises, only a few more than 10 per cent. failed to pass the final examination. Supplementing the orthopedic examination a postural photograph of individuals with poor body mechanics is taken before any corrective work is given. Upon release from a corrective class, another photograph is taken to show improvement over the initial posture.

The *Bulletin* states that:

> The increasingly large number of appendectomies is a matter of considerable interest. This year there have been a number of non-specific intestinal infections, giving a clinical picture which can not be distinguished from appendicitis. There is no question, however, that both students and doctors are more alert in the recognition of early signs and symptoms of acute appendicitis than they were even a few years ago. Previously, students with mild abdominal symptoms would often stay in bed without sending for a physician. The mild infections in the appendix might subside with rest and low diet. At present this is a rare occurrence and when a tentative diagnosis of appendicitis is made the patient is sent to the hospital for observation. There can be no question but that this is the conservative thing to do and may account for the fact that during the past ten years there has been no mortality occurring in a series of 373 appendectomies.

RADIO BROADCASTING BY STUDENTS AT UNION COLLEGE

A SERIES of eight informal student discussions on topics of current interest will be presented over the radio as a bi-weekly feature by the International Relations Club of Union College,

beginning on February 1 and continuing until May 10. Comments from listeners in all parts of the United States and some foreign countries persuaded the officials of radio stations WGY and W2XAD and W2XAF (short wave) to continue the feature which was inaugurated last year.

The schedule has been extended this year from four to eight discussions. Many letters were received from listeners in Europe and other parts of the Americas. Newspaper comment from abroad was also received.

Holding informal round-table sessions modeled after the University of Chicago faculty discussions, the students will present discussions on the general topic of "what American youth are thinking about international relations." As last year, they will be prepared, without censorship, by the students who will, however, have opportunity to avail themselves of the advice of members of the Division of Social Studies. Students will be entirely free to disagree, not only with themselves, but with any faculty member who may be invited to be present. This year there will be a discussion of domestic as well as foreign problems.

The aim of the program, according to the club's official announcement, is to "give some idea of the vitality and competence of college students of to-day in grasping the import of grave issues and in debating them informally with their fellows in order to arrive at wise decisions for the country's future."

These half-hour round-table discussions, held on Monday nights at 11:15 Eastern Standard Time, are expected to give the public some idea of representative student opinion on important problems. Each broadcast will consist of a conversation between two undergraduate students, with an occasional question, interruption or directional question by one or two faculty members who will be present. Frank J. Manheim, instructor in European history, is faculty adviser of the club.

The topics which will be discussed are: February 1—"What Value is a College Education?"; February 15—"Our Latin American Policy"; March 1—"Whither Labor?"; March 15—"Why is America Arming?"; March 29—"America and the Far East"; April 12—"Political Reform"; April 26—"Government and Business"; and May 10—"What We, as Students, Expect from the Future." President Dixon Ryan Fox will inaugurate the series with a brief introduction.

DU PONT FELLOWSHIPS FOR RESEARCH IN ORGANIC CHEMISTRY

E. I. DU PONT DE NEMOURS AND COMPANY has decided to increase the number of fellowships it awards annually to six post-doctorate fellowships and eighteen post-graduate fellowships for the academic year 1937–38. This action has been taken because of the success of the plan in encouraging and developing organic chemical research. These fellowships, which will be held at eighteen leading universities and colleges, are maintained to encourage more promising students in research work in the field of chemistry. Last year, the company awarded four post-doctorate fellowships and twelve postgraduate fellowships. Since these awards were first offered in the academic year 1918–19, there have been granted 350 fellowships and 34 scholarships in 33 universities, and, in addition, a national fellowship was awarded at the Johns Hopkins University for a period of four years.

The purpose of the plan is primarily to promote the advancement of science and the scientific training of young men, and to cooperate with the educational institutions in their efforts to carry on advanced research work. The du Pont fellowships differ from the usual industrial fellowships in that they are not restricted to research on subjects directly connected with the du Pont products. Experience has proved that the broad purpose of the plan is best served by permitting the colleges to select the beneficiaries of the fellowships and the research subject as well.

An appropriation of $26,500 has been made for the year 1937–38 to be allocated as follows: $13,000 for six post-doctorate fellowships at $2,000 each, with $1,000 to cover the cost of equipment needed in the work of this group, and $13,500 for eighteen postgraduate fellowships at $750 each. The eighteen institutions selected are the University of Chicago, Columbia University, Cornell University, Harvard University, the University of Illinois, the Johns Hopkins University, the Massachusetts Institute of Technol-

ogy, the University of Michigan, the University of Minnesota, the University of North Carolina, the Ohio State University, Pennsylvania State College, the University of Pennsylvania, Princeton University, Stanford University, the University of Virginia, the University of Wisconsin and Yale University.

The continuation and expansion of this combination (post-doctorate and postgraduate plan) will tend to further assist the universities—through the post-doctorate plan in raising the quality of organic research by enabling the promising professor selected to engage in more difficult problems through employment of trained assistants; through the postgraduate plan it will assist promising young men to obtain a further education along the lines required by the chemical industry.

The du Pont fellowship plan was inaugurated in 1918. In that year, seventeen fellowships with an average stipend of $750 were made available to sixteen universities for research in chemistry. The selection of the fellows and the thesis subjects was left entirely to the discretion of the college authorities.

BUDGET OF THE OREGON STATE BOARD OF HIGHER EDUCATION

THE Oregon State Board of Higher Education in charge of all state-controlled higher education in Oregon will request an amount of over $1,300,000 of the Oregon Legislature this year for the biennium 1937–1938 as a supplement to the regular millage fund.

These budget requests include the amount necessary for the restoration of salary reductions ($781,580), a sum to offset the decrease since the last biennium in state funds caused by exhausting all balances and by shrinkage in millage ($312,012), and a sum to care for increasing enrolment and advancing costs ($224,340). Although enrolment has increased 46.3 per cent. in the past three years, the sum requested is still $776,204 or 13 per cent. less than appropriations received during the 1929–1930 biennium.

Dr. Frederick M. Hunter, chancellor of the Oregon State System of Higher Education, has released for publication the following statement in this regard:

Prior to the establishment of the present Board of Higher Education by the 1929 legislature, separate state appropriations had been provided for the University, the State College, the University of Oregon Medical School, and the three normal schools, which now comprise the Oregon State System of Higher Education.

Since the creation of the present State Board of Higher Education in 1929, appropriations for higher education have been reduced $2,184,263, or about one third of the total income. In other words, between the bienniums 1929–1930 and 1935–1936 appropriations for higher education decreased more than 31 per cent., while during the same period, appropriations for 29 regular functions of the state increased 5 per cent., and appropriations for all state functions other than higher education increased nearly 13 per cent.

Partly to offset this decrease, the State Board of Higher Education is requesting a supplement to the millage of $1,317,932 for the biennium 1937–1938.

Reductions in higher educational costs through unified administration enable the board to request from the legislature for the operation of all essential functions of all the institutions during 1937–1938 a budget from state funds which is $776,000, or 13 per cent. below the 1929–1930 state appropriations for the separate institutions, even though enrolments have now passed the 1929–1930 level. Since 1929–1930, appropriations for the other divisions of state government have actually increased. These comparisons indicate that the board is carrying out the mandate of the legislature and the people with regard to economy in operation under the unified system.

EDUCATIONAL NOTES AND NEWS

DR. JOHN HARVEY SHERMAN, lawyer and economist, of Chicago, has been elected president of the University of Tampa, Florida. He will take office on or about April 1, succeeding Dr. Frederic H. Spaulding, who resigned recently.

THE REV. ALFRED B. OATES, formerly head of the Hudson College of Commerce and Finance, Jersey City, has been appointed president of the College of St. Francis Xavier, New York City. Father Oates succeeds the Rev. J. Tracey Langan, who goes to the Loyola House of Retreat at Morristown, N. J.

THE Duke of Kent has been made chancellor of the University of Wales.

AT Columbia University, Dr. Lawrence W. Sloan, who has been a member of the staff of the Columbia Presbyterian Medical Center since 1926, has been named assistant dean of the School of Medicine. He will be in charge of graduate studies. Dr. George Sherburn, formerly of the University of Chicago, has been appointed professor of English. He was a visiting professor at Columbia during the fall semester. Dr. Arthur W. Jeffrey, of the American University in Cairo, Egypt, has been appointed visiting professor of Semitic languages.

DR. KARL W. BIGELOW, professor of economics at the University of Buffalo, and Erich Hylla, formerly of the Prussian Ministry of Education, have been appointed visiting professors of education at Teachers College, Columbia University. The resignations of Dr. Heber Harper, professor of education, and of Dr. William R. Odell, assistant professor of education, have been accepted. Dr. Walter E. Hager, assistant secretary of Teachers College, has been appointed secretary.

DR. R. S. HAWKINS has been appointed acting dean of the College of Agriculture and director of the Experiment Station of the University of Arizona. He takes the place of Dr. Paul S. Burgess, who was recently elected president to succeed Dr. Homer LeRoy Shantz.

DR. J. B. JOHNSTON, professor of neurology and since 1914 dean of the College of Science, Literature and the Arts at the University of Minnesota, having passed the age of sixty-eight years, will retire at the close of the academic year. He will be succeeded as dean by Dr. John T. Tate, professor of physics, who will take office on July 1.

PROFESSOR CHARLES BURTON GULICK, for over forty years a member of the department of Greek and Latin at Harvard University, will retire with the title of Eliot professor of Greek literature, emeritus, on September 1.

DR. VIRGIL E. DICKSON, for eighteen years associated with the Berkeley, Calif., public schools as assistant superintendent and director of the Bureau of Research and Guidance, has been elected superintendent for a four-year term beginning on July 1. During the present school year he is serving as acting superintendent of schools, having taken the place of Dr. Lewis W. Smith on July 1. Dr. Dickson first accepted a position in the Berkeley public schools on a part-time basis in 1918 when he went to Berkeley to establish the counselling and guidance service. Prior to his assuming full-time duties in Berkeley, he was for a period of eight years deputy superintendent and director of the Bureau of Research and Guidance for the Oakland public schools and lecturer in the department of education at the University of California.

The Bulletin to the Schools of the University of the State of New York records several changes in superintendencies and principalships that have recently occurred. Carl V. Warren, principal of the Skaneateles High School for the past seven years, has been named superintendent of schools at Massena, to succeed E. G. Simmons, who went to Cortland to fill the vacancy caused by the death of Superintendent Leo T. Wilcox. Lyle Young, vice-principal at Skaneateles, has been named acting principal. Dr. Charles G. Hetherington, who has been superintendent at Penn Yan since 1928, has been appointed acting superintendent at Auburn. Because of illness Superintendent George F. Barford, of Auburn, is on leave of absence for the balance of the school year. The Penn Yan board of education has named as superintendent Clayton E. Rose, who has been principal of the Hamilton High School. Grayton W. Yaple, who has been vice-principal of the Hamilton High School for the past eight years, has been appointed acting principal of the school for the remainder of the school year.

FREDERICK J. MEDDEN, who has served for sixteen years as supervisor of school attendance in the Attendance and Child Accounting Division of the New York State Education Department, retired on December 31. His service to education has extended through a period of forty years.

SANFORD BATES, director of the Federal Bureau of Prisons, has resigned to accept the post of executive director of the Boys Clubs of America.

WILLIAM H. MCCARTER has been appointed director of athletics at Dartmouth College. During the past year he has been acting super-

visor of athletics. For nine years he taught in the department of English and since 1930 has been assistant librarian of the Baker Library at that institution.

ELMER C. FANSETT, instructor in economics and finance officer at Pacific University, Forest Grove, Ore., has been appointed alumni secretary and field representative of the Associated Student and Placement Service at the University of Oregon.

DR. RUTH E. BOYNTON, associate professor of preventive medicine and public health at the University of Minnesota Medical School, has been appointed director of the student health service of the university.

PROFESSOR LLOYD K. GARRISON, dean of the law school of the University of Wisconsin, was elected president of the Association of American Law Schools for 1937 at the recent meeting of the association in Chicago. As president of the association Dean Garrison becomes member *ex officio* of the House of Delegates of the American Bar Association.

DR. JAMES B. CONANT, president of Harvard University, has been elected a member of the Athenaeum Club, London, under the provision which empowers the annual election by the committee of a certain number of persons of distinguished eminence in science, literature, the arts or for public service.

THE gold medal of the National Institute of Arts and Letters for history and biography was presented at the annual dinner of the institute on January 20 to Charles McLean Andrews, Farnam professor of American history emeritus at Yale University.

THE Lotus Club of New York City gave a dinner on January 21 in honor of the president of the club, Dr. Harry Woodburn Chase, chancellor of New York University. Dr. John H. Finley, of *The New York Times*, was toastmaster. The guests included Dr. Ernest M. Hopkins, of Dartmouth College; Dr. Harold W. Dodds, of Princeton University; Dr. Frederick B. Robinson, of the College of the City of New York; Dr. George B. Cutten, of Colgate University; Dr. C. C. Williams, of Lehigh University; Dr. Robert C. Clothier, of Rutgers University; Dr. Harvey N. Davis, of the Stevens Institute of Technology, and the Rev. Robert I. Gannon, of Fordham University.

DR. ISAIAH BOWMAN, president of the Johns Hopkins University, was the guest of honor on January 16 at a luncheon given in Chicago by sixty alumni. Among those present were: Dr. Isaac A. Abt, Professor Henry Crew, Professor William A. Nitze, William L. Ross, Dr. Oscar Schultz, Dr. William P. Finney, Dr. Gladys H. Dick, Martin C. Schwab, Dr. Preston Kyes, Dr. Gordon J. Laing and Professor Omera F. Long.

DR. HENRY T. MOORE, president of Skidmore College, was the guest of honor on January 21 at the annual dinner of the alumnae of New York City.

THE Henry E. Howland memorial prize, of $1,500 and a medal, has been conferred by Yale University on Salvador de Madariaga, formerly permanent delegate from Spain to the League of Nations. The prize is awarded "in recognition of marked distinction in the field of literature or fine arts or in the science of government."

GEORGE DAVID OBERLE has been awarded the annual research prize of the Kansas State College Chapter of the Society of Sigma Xi for his work on "The Influence of Leaf to Fruit Ratios on the Photosynthetic Activity of York and Livland Apple Leaves." This prize is awarded annually by the society to a graduate student at Kansas State College who makes the most significant scientific contribution during the year.

EIGHT alumni awards of merit for 1937 were presented at the Founder's Day exercises at the University of Pennsylvania, on January 23. Those who received the awards are: Dr. George E. de Schweinitz, emeritus professor of ophthalmology and a trustee of the university; Dr. Thomas S. Gates, president of the university; Dr. Robert Tait McKenzie, sculptor, and research professor of physical education at the university; J. Vaughan Merrick, head master of St. George's School, Newport, R. I.; Dr. Josiah H. Penniman, provost of the university; the Most Rev. James De Wolf Perry, of Providence, R. I., presiding bishop of the Protestant Episcopal Church in the United States; Dr. A. S. W. Rosenbach, of Philadelphia, writer and

bibliophile, and Dr. Witmer Stone, vice-president of the Academy of Natural Sciences, Philadelphia.

PROFESSOR ROSCOE POUND, dean emeritus of the Harvard Law School, will sail for Tokyo from San Francisco on February 4 on a seven-month lecture tour around the world. He will speak at the University of Tokyo, the School of Comparative Law at Shanghai and at the Universities of Oxford, Cambridge, London and Birmingham. He will also attend the International Law Conferences at Paris and The Hague.

THE Committee on Distinguished Visitors of Ohio University have announced that lecturers who will visit the university during the next months are: S. K. Ratcliffe, English journalist and publicist, February 4; Dr. Irving Langmuir, chemist, April 6 and 7; Dr. Ralph W. Sockman, religion, May 4 and 5. Each speaker in the series gives three lectures which are open to the townspeople as well as to the faculty and students. Lecturers in October, November and January were: Dr. William E. Lingelbach, professor of history at the University of Pennsylvania; Professor George Lyman Kittredge, of Harvard University; Dr. Vilhjalmur Stefansson, explorer, and Dr. Edward S. Evenden, professor of education at Teachers College, Columbia University.

DR. LOTUS D. COFFMAN, president of the University of Minnesota and visiting professor for the Carnegie Endowment for International Peace to New Zealand and Australia, will be the guest speaker at the annual banquet of the Alumni Association of the University of Maryland, which will be held on February 11.

IT is announced that Dr. Arthur H. Compton, professor of physics at the University of Chicago, will give the main address at the convocation of the University of Missouri on February 9.

DR. DEXTER S. KIMBALL, dean emeritus of the College of Engineering at Cornell University, was guest lecturer at the University of Maine on January 14 and 15. He spoke on "Engineering as a Vocation" before students in the orientation course and delivered two lectures to engineering students on "Administrative Engineering."

DR. W. T. CARRINGTON, from 1899 to 1907 Missouri State Superintendent of Schools and from 1907 to 1919 president of the Southwest Missouri State Teachers College at Springfield, died on January 21 at the age of eighty-three years.

THE REV. JOSEPH RIORDAN, S.J., from 1891 to 1897 president of Santa Clara University and later a professor at San Francisco and Loyola Universities, died on January 23.

PROFESSOR GEORGE H. SMITH, a member of the faculty of Wheaton College, Illinois, for thirty-eight years, who retired as head of the department of foreign languages in 1935, died on January 2 at the age of ninety years.

FRANK H. H. ROBERTS, at one time professor of history at the University of Denver, and from 1921 to 1926 president of the junior college and principal of the high school in El Paso, Texas, died on January 14, at the age of sixty-seven years.

SEWARD S. TRAVIS, formerly school superintendent and high-school principal of Sayville, Long Island, N. Y., died on January 16. He was sixty-one years old.

THE trustees of Pennsylvania State College have approved the erection at the cost of $1,000,000 of a dormitory to accommodate five hundred women students. Construction is expected to begin this spring.

WILLIAM A. SARGENT, of Brookline, who died on December 29, bequeathed $300,000 to Amherst College, and $100,000 each, in memory of his mother, to the Massachusetts General Hospital and the New England Deaconness Hospital. The Boston Art Museum will receive his collection of eighteenth century copper plate French books, also his books of art and all other books in foreign languages in his library. These are to be kept as a collection under his name, and are not to be loaned or moved from the museum.

BY the will of the late Miss Mary Lee Ware, of Boston, who made possible the glass flower collection of Harvard University as a memorial to her father, the sum of $300,000 is bequeathed to the university. The president and fellows of Harvard College are directed to divide the income from the $300,000—one third going to the support of Rudolph Blaschka and Mrs. Blaschka, whose family made the glass flowers and models; one third to preserve the collection, and one

third to pay the salary of officials of the museum in which the objects are housed. The will expresses the wish that the director shall give prominence in the museum to the educational and practical side, and shall endeavor to augment the usefulness of the museum of exploration and investigation. The wish is also expressed that the director have discretionary power under the president and fellows as to expenditures necessary. Other bequests include $40,000 to the Boston Lying-in Hospital; $20,000 to Harvard University for the work of the cancer commission; $40,000 to the Boston Athenaeum, $20,000 to the Massachusetts Society for Mental Hygiene; $10,000 to Berea College, Kentucky; $20,000 to the Massachusetts Eye and Ear Infirmary; $70,000 to the Boston Museum of Fine Arts, and $30,000 to Harvard College for the Fogg Museum of Art.

A DONATION of $42,000 has been made to Stanford University by the Rockefeller Foundation to enable the university to start a School of the Theater.

THE trustees of Trinity College, Hartford, Conn., have received an anonymous gift of $100,000 for the endowment fund of the new laboratory of chemistry. An anonymous donor also gave the $450,000 which made erection of the laboratory possible. The building was opened for classes in September.

AN anonymous gift of $110,000 to Cornell University, for the general endowment fund, was included in a report of donations for the first half of the academic year ending December 31, compiled by Comptroller Charles D. Bostwick. Of the total gifts amounting to $673,740 for the half year, $430,006 represents additions to the endowment funds of the university. For the entire year 1935–36 the comptroller reported donations of $781,487. Among the gifts was the sum of $160,000 for the Medical College in New York, from the Rockefeller Foundation for the establishment of a medical clinic at the Kipps Bay Health Center; $270,832 from the John McMullen estate to be added to the McMullen Fund for engineering scholarships; $10,741 representing the gifts of twelve war veterans of their adjusted compensation certificates. The anonymous gift of $110,000 from an alumnus designated as "Anonymous Endowment Fund No. 4" represents the beginning of a fund, the income of which for the present is to be spent at the discretion of the Board of Trustees. Among thirty-two miscellaneous donations for research, amounting to $35,887, the Carnegie Corporation made available $3,625 for City and Regional Planning, while the Rockefeller Foundation gave $5,700 for reflex behavior research and $3,333 for research in longevity. The Cornellian Council, the alumni fund-raising agency of the university, reported gifts from the alumni for the first half of the year amounting to $41,275, of which $19,182 was unrestricted as to use.

EXCAVATIONS are being made for the foundations for a general library building at the University of Virginia, to be erected at a cost of $950,000. The new building will have more than 100,000 square feet of floor space. Shelf space for 600,000 books will be provided, and there will be seats for 1,000 students in the reading rooms and the special study rooms for graduate students and research workers. The building is so planned that, with future additions, it will be possible to increase the library capacity to 2,000,000 volumes.

ACCORDING to an Associated Press dispatch, plans to establish a Pan American College to improve relations among American nations through student groups were outlined on January 11 by Dr. B. F. Ashe, president of the University of Miami, Florida. The college, to be known as "The Pan-American Institute of Havana," would be created by participation of leading colleges in the United States and Latin America. Fernando Sirgo, Cuban secretary of education, is sponsoring the project and arrangements are being made to found the institute within a few months.

A COMMITTEE of six, with President Sidney E. Smith, of the University of Manitoba, as chairman, and Dr. H. M. Speechly, of the museum, as vice-chairman, has been organized to formulate a program to extend the scope of adult education in Manitoba. Exhibits from the Manitoba Museum Association, paintings from the Winnipeg Art Gallery and the National Art Gallery at Ottawa and lecturers from the University of Manitoba are this year being sent to towns and villages in the rural areas of the

province. The administrative work will be performed by Miss Alice E. Johannsen, of Ottawa, who has been sent to Winnipeg by the Canadian Carnegie Committee, from which the local committee expects to receive financial aid.

DR. F. H. SPENCER, lately chief inspector to the London County Council, speaking before the recent meeting of the joint assembly of the Conference of Educational Associations, is reported by the London *Times* to have described what he saw during a recent visit to 20 schools in a Midland county. Fifteen of them, he said, ought to be blown up. One school out of the 20 had a hot-water supply, and half of them had no internal water supply at all. Not half the playgrounds were of asphalt, the rest being gravel, which turned to mud in wet weather and not one school had a hall. There were few elementary schools in the north of England where heating was adequate, and in many the single open fire was still to be found. Children were often too cold to be educated. In most of the present school buildings an education, according to present-day conceptions, could not be given. A complete revision of the material environment of elementary schools could probably be carried out for something like £80,000,000. To replace the schools of England by providing an environment in which children could be educated according to modern standards and brought up to be as healthy and vigorous as possible would be cheap at the cost. The investment would be one of permanent value and would be paid for over and over again by a more alert and better trained population.

ACCORDING to the Chicago *Tribune* what was described as the first metropolitan daily newspaper published exclusively for children appeared on January 8 from the presses of *Nichi Nichi*, one of Tokyo's journals. The juvenile publication was of tabloid size. An announcement said that it would comprise four pages daily and eight pages on Sunday. Its contents were written in simple language and were profusely illustrated. Its columns were filled with news that might have been read by the children's elders in the same edition of *Nichi Nichi*—local, national and international news; educational subjects and comic strips, children's stories, articles by boy and girl readers, prize competitions, detective stories, movie and radio reviews, puzzles and games. To overcome near-sightedness, a frequent difficulty of Japanese children, the publishers chose type twice the normal newspaper size. A monthly subscription to the new publication costs about seven cents. Its prepublication circulation was announced at 122,000 copies daily.

DISCUSSION

GRADUATE WORK IN URBAN UNIVERSITIES

IT may be well first to inquire concerning the function of graduate schools in general. If we may look upon the work of the liberal arts college to be that of presenting to young men and women an elementary knowledge of the culture handed down to them from the past—the science, the art, the literature and the history—then there is left for the graduate school a more advanced and mature study of the same culture by the ablest of the graduates from the colleges. In addition the graduate school has two functions which do not properly belong to the colleges and which are the only justification of the graduate school as a separate organization. I refer to research and the interpretation and application of the results of research. In these two fields lies the great work of the graduate school.

The functions of interpretation and application have not in the past been adequately performed. The "pure" scientist working away in his laboratory makes discoveries. There remains the further task of interpreting the results with reference to human needs and to relationships with other knowledge. Quite often this second task must fall to some one other than the investigator, but the interpretation must be made by some one if society is to reap the full returns from the discoveries.

However, research comes first, and must be considered the primary function of the graduate school, which may be considered as the tool or instrumentality of the community for pushing forward the boundaries of knowledge.

If we are to live in the light of knowledge, then the importance of expanding the limits of our knowledge is at once apparent. This work falls to the graduate school. In doing this work, in performing its functions of discovering and interpreting truth, it should become the community's most cherished institution. Providing the graduate school with means and facilities for doing its work should be the highest duty of the community.

It is the purpose of this article to consider the work of the graduate school in urban universities. By urban university I mean that type of institution rather recently developed in America, located in the larger cities and, in large measure, serving the higher educational needs of such cities.

With few exceptions state universities were set up in rural communities. The median population of the cities in which the various state universities are situated is about 18,500. The endowed and private colleges are also for the most part situated in small communities. Columbia University and Chicago University are notable exceptions. The more recently established municipal or urban universities are necessarily in large cities. The smaller cities can not support them. Their location gives them many advantages, and they consequently are destined to become institutions of a type quite different from that of the older universities.

In the first place, in urban universities research in the physical sciences has many advantages and opportunities not found outside the large cities. The great industries are situated in or near the large cities. These industries furnish both stimulation and material for the researcher. The advanced student in physics and chemistry can easily see processes and laws in operation. Problems in research are suggested. Since the industries are interested in new discoveries they are willing to cooperate in research. In fact, many industries have their own research departments. These, however, are interested chiefly in the solution of immediate, practical problems. To this kind of research I shall return later in this article. I have in mind here the physicist and chemist who are interested in the pursuit of truth, along some particular field. Such men, usually known as "pure" scientists, make most of the fundamental discoveries. This type of worker should find in the urban universities the best opportunity for his work.

The researcher in the social sciences will find in the universities of the large cities the ideal field for his investigations, for here is society in all its complexities. Here the social problems appear and here are the materials for their solution. Here are millions of homes. Here occur thousands of marriages, divorces, births, deaths. Here are the melting pots of the nations. Here are the clashes of creeds, political ideas and social customs. Calling the class roll in an urban university course is like calling the roll of the nations.

The museums, libraries, historical collections of books and other material furnish to the historian, to the student of language and literature and to the archeologist rich material for their researches.

Educational research can be carried on in a large city on a scale that is impossible in smaller communities. Here we have many schools, many pupils and many types of pupils, making possible studies in comparative methods, segregation of types and abilities, effects of different forms of curriculums, different forms of organizations, as well as studies of visual, auditory and other forms of sensory defects. In the large city school system psychological and physical facts concerning children are easily and accurately obtained. The Graduate School of Wayne University has an especial advantage in educational research in that it is an integral part of the public school system under one board of education. It functions as a part of the system as a whole.

The type of research above discussed is carried on in all universities. The urban university has certain advantages in such work. But in most of the so-called applied sciences and in the solution of practical problems presented by the large city in any of its institutions or organizations, the urban university has a distinct advantage and a unique field. Here the Graduate School may be considered the institution supported by the city to solve its immediate, practical problems. These problems involve a study of research work already done in the hope of finding in the results of such work a solution,

and carrying on special investigations when such are needed. These problems arise in every department of government and every institution of the city. In performing this function of problem-solving for the city, the graduate school should prove to be the most profitable and helpful of all the city's institutions. Instead of being a luxury it is the one thing the large city can not afford to do without. In the Graduate School of Wayne University, the School of Public Affairs is now definitely functioning as an instrument of research for the city of Detroit. Every other school and department of the university should perform a similar function, each in its own field.

I do not, however, have in mind that the graduate school of the urban university should concern itself with trivialities and minor details of shops and trades and schools, but with fundamental problems and principles. Its faculties should be always ready to furnish accurate information, and its laboratories should always be held ready to solve the community's problems. To the graduate school the people of the city should always be able to turn to find the truth. If the truth is not known, then it should be the business of the graduate school to search for it and find it. The graduate school of the urban university might very well publish at regular intervals, for the use of the families of the city, small bulletins setting forth the results of recent studies which are of importance to the home. I have in mind studies in home economics, nursing, child training and in any other field in which the home has an interest.

A great medical school is impossible outside the large cities. In both forms of research (1) in the "pure" sciences and (2) in the applied fields, the medical graduate school has a great opportunity and a great future. The hospitals, the clinics, the health departments furnish a rich field for the researcher in medicine and surgery. It will be a short-sighted policy that does not richly endow the graduate department of the medical school. The returns to the city in the form of health and happiness can not be adequately estimated. But from the financial point of view alone the graduate department of the medical school deserves to be well endowed by the community, because the improvement in the cure, control and prevention of disease, which will come from extensive research, means a great money saving to the people.

From every point of view it is evident that the graduate school of the urban university has a great future, and will be able to perform a function for the community more direct and immediate than has ever been done before. It is needless to add that this function can not be performed without large endowments to provide laboratories, libraries, fellowships and professorial chairs. Research is for the good of the community and the community must support it.

W. H. PYLE

WAYNE UNIVERSITY

LEARNINGS: A PROMISING TERM FOR EDUCATION PLANNERS

IT seems highly probable that a major part of all contemporary speaking and writing on educational topics is made profitless or worse by the vagueness and ambiguities into which the term "education" itself has become submerged in recent years.

Among the thousands of American men and women who in our times are philosophizing endlessly about education there seem to be few who have tried thoughtfully to hold the word itself to reasonable bounds. For some "all growths are education"; for others "mere trade training is *not* education"—not even those highly organized training processes which produce superior performance powers in particular vocations.

Many others of these philosophizers, when it suits their sentimentalized purposes, insist that "propaganda is *not* education"—forgetting that men of demonic purposes can *teach* the young or the elderly credulous no less than can men of god-like intentions. To some educators, indeed, *all* educations, like all whiskies to the Kentucky colonel, must be *good* education. They, too, refuse to believe that the term "education" should surely be used by realistic thinkers to include inculcating of learnings towards anti-social or other bad ends as well as good.

In other words, it is sad but true that the special pleaders have so long had their respective ways with our once respectable term "education" that the burden of sentimentalized and biassed connotations which it now carries has rendered it unserviceable for purposes of realistic thinking and nearly useless for purposes of scientific

communication. Even when, as in some of the publications of the present writer, the plural "educations" is substituted for the abstract singular, the situation is not noticeably improved.

It is, therefore, proposed to critical thinkers in our field that we henceforth substitute the term "learnings" in large proportions of our interpretations of, and plannings for, the work of our schools and colleges.

Such action is justified by the unquestionable fact that nearly all educative processes are focused towards the production of *learnings*, whether purposed or unpurposed. Hence "learnings" of more or less consciously selected kinds constitute the basic stuffs, the primordial elements, the molecular components with which teachers and other educators are primarily concerned.

The educational psychologists, of course, now think very largely in terms of "learnings." But unfortunately for curriculum specialists and other educational policy makers, our educational psychologists do not, and, quite properly, should not, concern themselves with the personal or social *functionings* of learnings, and therefore with the relative values of the infinitude of potential learnings which human culture makes it possible for young or old to achieve. Yet it is in just those areas of potential functionings of learnings, and in the larger human values to be served by such functionings, that the progressive educators of our time are finding the greatest number of as yet insoluble problems presented by our dynamic civilization.

To the present writer it seems certain that the general use of the term "learnings" would at least greatly improve our relations with a public of laymen who have become seriously mystified and threateningly skeptical because of the incessant changes in current educational thought and experimentation which are expressed in terms of seemingly esoteric applications of the word education itself. To intelligent laymen such queries as "when are we educated," "education for life," "education as a social process," "activity education" and numberless others are, to say the least, naively question-begging when they are not suspiciously misleading.

But all mature persons have had extensive and very realistic experiences with *learnings*—learnings of vices as well as of virtues, learnings of habits as well as of knowledge, learnings easy to acquire as well as learnings only to be achieved through much drudging concentration and toil.

Furthermore, all laymen have had much experience with school or extra-school *teaching* processes, the purposes of which have always been to produce one or another kind or degree of learning. Likewise, they have learned from their own experiences that, whereas educators' insistence on education as a "social process" may or may not be significant, nevertheless large proportions of the learnings of youths as well as of adults are actually achieved through intimate and often poignant contacts with stones or water or fire, with wild game or unfamiliar tools or from solitary reflections in sight of the stars or upon sick beds.

But the gains to philosophical and scientific thought and communication to be had from free use of the term learnings would probably in the long run far surpass those which might come from better public understanding.

For one thing large proportions of the learnings of persons (and of other animals as well) are, as the psychologists have shown us, relatively objective and discrete things. They are achievements which in many cases manifest themselves by observable and even measurable behaviors. Hence they can be studied and evaluated in relation to planned-for functionings far more realistically than is practicable when customary instructional, training or other educative processes occupy the foreground of attention.

As noted earlier, learnings lend themselves hardly less than do the material composites of planetary systems, geological strata or plant organisms to analytical treatments. "How many and what words has a given youth learned to spell correctly?" "Except for slurring his 'ings,' John has learned to pronounce ordinary words fairly well." "Have you learned the locations of the Lofoden Islands or Callao?" These analytical processes are destined to be of great importance when sociologists or educators really come to grips with problems of educational values, since it is certain that the economists' "law of diminishing returns" applies to learnings no less than to wheat or other material utilities.

For of course the starting point to any realistic study of educational values must inevitably

be some amplification of Herbert Spencer's query, "What knowledge is of *most* worth?" Following the break-up of many long-established traditions and customs controlling household, work-place, playground and school-learning processes, educators are being steadily forced as never before to attempt scientific solutions of the numberless problems suggested by the larger question, "What learnings—of habits and skills, of knowledge and appreciations, of ideals and attitudes—are of *most* or *optimum* worth?"

But not only *what kinds* of learnings; of each kind *"how much*—in extent of knowledge or degree of skill or dominance of ideal or depth of appreciation—is of optimum worth?"

Such queries as the foregoing, however, only open doors to the more fundamental problems involved in the valuing of learnings. "Of optimum worth *to* or *through* whom?" "Of optimum worth for *what* functionings useful to persons or, through persons, to their societies?"

At the present moment, indeed, the so-called "functional approach" to the study of educational values seems highly promising. Our crudely empirical social studies have given prominence to some of the unlike rôles—vocational, civic, religious, cultural, family-rearing, health-conserving and others—which well-developed men and women must in some degree fill. And, in spite of the "Progressives" devotion to Utopian ideals of fully developed "personality," it seems probable that most school-directed learnings beyond basic literacy must eventually be valued rather directly in terms of their proven contributions to superiorities in the exercise of one or another of the functional rôles of men and women, whether in their generalized *utilizing* capacities or their specialized *producing* capacities.

Much of contemporary American educational thought seems, as earlier intimated, to be befogged by various kinds of sentimentalized romanticism. But there are not a few realists also among the writers and speakers on current educational topics. Some of the most convincing of these are laymen rather than professional educators, a fact which may be of much significance for the future.

To these realists, as the present writer prefers to call them, the possibilities of a future "science of education" are fully as promising as were the possibilities of a "science of medicine" in the seventeenth century. The psychological sciences are even now laying some good foundations for scientific understanding and control of best *methods* of promoting learnings in young and old persons according to diagnosed types or levels of natural capacities.

On the other hand, the sociological sciences, still hardly out of swaddling clothes, are also feebly pointing some ways to scientific studies of the possible functionings and ultimate values of the multitudinous learnings of which members of the human species are so capable.

Eventually, on the two foundations to be laid by the psychological and sociological sciences we may well expect to find, to degrees not now imagined, how to build particular educational sciences of curriculum and course construction, of school building and equipment provision and even of school financing and operation.

DAVID SNEDDEN

PALO ALTO, CALIF.

VASHON HIGH SCHOOL CONTROVERSY

I AM convinced that nowhere in the United States do Negroes receive better educational opportunities than the Board of Education provides in St. Louis. Negro children comprise seventeen per cent. of the total school attendance. They have received in the past two years twenty per cent. of the total expenditures for school buildings, and twenty-seven per cent. of the total expenditures from the Public School Relief Fund contributed by employees of the board and administered by the superintendent. Negro school buildings include some of the newest and best in the city; and Negroes have every educational opportunity authorized by the Board of Education. Negro teachers receive the highest salaries paid in the United States for teachers in separate schools.

The editorial quoted by SCHOOL AND SOCIETY in the issue of December 5, 1936, page 743, is due to the fact that a small group of Negroes protested the board's action in authorizing the construction of a new elementary school on the site already provided for the Vashon High School. Vashon is the newest of the Negro high schools in St. Louis and in keeping with modern

tendencies has a much larger playground space than the older high schools for either race. One of the main thoroughfares in the city has been opened behind it. A new elementary school fronting this thoroughfare would add to the beauty of the block and would still have more playground space than the average elementary school in the city possesses. In the interest of conserving its depleted funds in order to continue its policy of keeping all the educational services intact, the Board of Education is eminently fair in its effort to locate this school where it will serve the best interests of the Negro population, all factors being considered.

A new municipal community building stands on a lot adjoining the Vashon High School. The plan to place an elementary school building in the same vicinity would have the effect of completing a group of buildings with all the necessary equipment for a civic center superior to anything that has been provided in this city for Negro education and civic life. The arrangement would guarantee maximum use of facilities, definite public economy and abundant provision for the social and educational welfare of the Negro population.

The newspaper editorial quoted in SCHOOL AND SOCIETY criticises the board's refusal to reopen the question for further consideration. Should the Board of Education rescind its action and delay its program merely to satisfy the wishes of a self-appointed committee? The decision already reached by the Board of Education is probably right, and unless pressure by the committee overcomes sound judgment it probably will remain unchanged, regardless of debate. How much interference in the conduct of public affairs should be granted to self-appointed committees as a guarantee against oppression? Would the newspapers place no limit on that? It will be most unfortunate if the argument on this point, an issue wholly extraneous to the merits of the school site, is permitted to reflect upon the high standards which the Board of Education maintains for the Negro schools in this city. It would be still more unfortunate if pressure is permitted to displace a deliberate professional judgment in the location of a school building.

HENRY J. GERLING,
Superintendent of Instruction,
St. Louis, Missouri

SOCIETIES AND MEETINGS

THE AMERICAN ASSOCIATION OF TEACHERS OF GERMAN

THE fifth annual meeting of the American Association of Teachers of German was held at the Hotel John Marshall, Richmond, Va., on December 28, 1936. Not only was the meeting notable for breaking all previous attendance records, but it was likewise remarkable for the sustained interest throughout in a program which for copiousness left little to be desired. The addresses for the most part dealt with various specific means of creating interest in the study of German. For the maintenance of interest emphasis was specifically placed upon the substantial appeal of a genuinely intellectual content of the classroom material and upon the personality of the teacher, his devotion and courage, stimulated, sustained and supported by sound scholarship, deliberate training and self-discipline.

The newly elected officers are:

President: Frank H. Reinsch, University of California at Los Angeles.

First Vice-president: Christian F. Hamff, Emory University, Atlanta, Ga.

Second Vice-president: Miss Helen Ott, Troy, N. Y.

Third Vice-president: Mrs. Claire S. Schradieck, Western Reserve University, Cleveland, O.

Members of the Executive Council: Samuel Krosch, University of Minnesota, and John L. Kind, University of Tennessee.

At a meeting of the new executive council Professor Frank Mankiewicz, of the College of the City of New York, was appointed to succeed Professor E. W. Bagster-Collins, of Teachers College, Columbia University, as managing editor of the *German Quarterly,* and Professor Curtis C. D. Vail, of the University of Buffalo, was appointed to the editorial board as an associate editor.

A more detailed report of the meeting and a complete list of the membership of the executive

council will appear in later numbers of the *German Quarterly* and the *Monatshefte für deutschen Unterricht.*

EDWARD F. HAUCH,
Secretary

THE AMERICAN ASSOCIATION OF TEACHERS OF FRENCH

THE American Association of Teachers of French held its tenth annual meeting at Richmond, Va., on December 31, in conjunction with the Modern Language Association. The executive council met during the morning, and its acts during the year were confirmed in the afternoon business session. Notable among these were the decision to sponsor again for 1937 summer scholarships for teaching members and to make permanent the policy of presenting the October and December issues free to new members who subscribe for the next calendar year before the issue dates of those numbers.

At the afternoon session two pedagogical papers were read: "La Phonétique çà et là en Europe," by Anthony Constans, of Birmingham-Southern College; and "The High Mortality in College Entrance French: Causes; Cure," by Hugo Giduz, of the University of North Carolina. Edmond A. Meras, of the College of the City of New York and Townsend-Harris High School, who was to read a paper, was absent because of illness.

The association reconvened at 6:30 for a subscription banquet at the Hotel John Marshall. After describing the remarkable growth of the society from sixteen to forty-one chapters in three years, President Lilly Lindquist called on Miss Edith Cartland, vice-president for the East, who spoke briefly. Two papers were then presented: "La Salle et les explorateurs pionniers français dans le sud-ouest des Etats-Unis," by Marcel Moraud, of Rice Institute, Houston, Texas; and "Translating from English into French Verse," by F. Baldensperger, of Harvard University, who, despite the English title, spoke in French and read numerous examples of his translations.

Entertainment was provided by the newly formed Virginia Chapter, which was host to the association.

JAMES B. THARP,
Secretary-Treasurer
THE OHIO STATE UNIVERSITY

SPECIAL CORRESPONDENCE

SCIENTIFIC EDUCATION UNDER THE SWASTIKA

FOR the purpose of Nazi education, science is significant only in so far as it is Nazi—that which has international applicability is but a subversive lie manufactured in Jerusalem or Moscow. Minister of Education Rust put the matter quite succinctly in an address at the Physikalisches Institut of Heidelberg University on December 13, 1935.

> It is, then, very superficial to speak of science "as such," as a common property of mankind equally accessible to all peoples and all classes, and offering them all an equal field of work. The problems of science do not present themselves in the same way to all men. The Negro or the Jew will view the same world in a different way from the German investigator.[1]

Perhaps this logic, to employ the diatribes of a *New York Times* editorial, means that for a Jewish astronomer the sun revolves around the earth, that for a Negro geometrician parallel lines cross each other, that for a Chinese physiologist the blood in the human body does not circulate.

Professor J. Stark, the president of the Reichsanstalt, who followed Minister Rust, was, according to a Nazi press report, "particularly zealous against the followers of Einstein and attacked with the greatest frankness the scientific methods of Professor Planck, who, as is notorious, is even to-day at the head of a celebrated learned institution." Appropriately enough, the occasion concluded with a Sieg-Heil and the Horst Wessel song.

Similar views or rather the same views in other words were expressed the next day in a further ceremony attended by men of high academic position but of little note in England or the United States. Speaking on "Nordic Race and Science," Professor Tirala, of Munich, char-

[1] *Nature*, London, January 18, 1936.

acterized Hipparchus and Leonardo da Vinci as Nordics who struggled for Nazi interpretation of science. Professor I. Stein traced the significance of Nazi knowledge in the education of the doctor. Professor A. Seybold, of Heidelberg, sketched the values of the military labor service camps in new physical and biological research. Professor Tomaschek, of Dresden, contrasted "the abstract mathematical junk of the Jewish physicists" with "the living conception of high and holy laws of Nature, such as the Nordic investigator wins for himself in reverence before the logic and greatness of Nature" and expressed the hope that German youth would rid themselves of once generally accepted rubbish about nature and "once more find the way to meet her with clear young eyes."[2]

Taking his cue from Minister Rust at the ceremonies celebrating the 550th anniversary of the founding of Heidelberg University, Dr. Ernst Krieck, professor of philosophy at Heidelberg, declared on the same occasion, speaking ostensibly "in the name of German science," that there is no longer any place in German universities for truth for mere truth's sake.

> The science of a nation is an expression of part of its total life and therefore is bound by the necessities, direction, and purposes of the national life. We do not know of or recognize truth for truth's sake or science for science's sake.
>
> Truth is the path and technique of science. Its purpose is the formation of human being and racial life in accord with the character and natural laws of the country.
>
> We demand that science point out not only differences but that it come out for a genuine decision. We find ourselves at the threshold of a new era of science and research. Science needs a new justification, a new purpose.
>
> We know we are on a new road in science, provided for us by our character, fate and history. We know that sooner or later all other nations will have to follow us on this road. We are convinced that on this new road we shall find ourselves in new intimate cooperation with the scholars of other lands.[3]

Ironically enough, a once distinguished physicist whose service to the world won him the Nobel Prize, Professor Philip Lenard, is to-day one of the leading exponents of this unique concept of science. In his recent work "Deutsche Physik," dedicated to "des Innern" Minister of Interior Frick, he waxes almost hysterically nationalistic.

> "German Physics?" one asks. I might rather have said Aryan Physics or the Physics of the Nordic Species of Man, the Physics of those who have plumbed the depths of reality, seekers after Truth, the Physics of the very founders of Science. But I shall be answered, "Science is and remains international." It is false. Science, like every other human product, is racial and conditioned by blood.
>
> It is important to examine the Physics of the Jewish people because it is a striking antitype of German Physics. . . . Like everything else Jewish, so also Jewish Physics has only of late become generally accessible to impartial public view. It had long developed in hiding and hesitatingly. With the end of the war . . . Jewish Physics in its full peculiarity suddenly swept forward like a torrent.
>
> Jewish Science soon found many industrious interpreters of non-Jewish or of partially Jewish blood. One may summarize them all by calling to mind the probably pure-blooded Jew, Albert Einstein. His *Theories of Relativity* seeks to revolutionize and dominate the whole of Physics. In fact, these theories are now down and out. They were never even intended to be true.
>
> The Jew is strikingly lacking in appreciation of Truth, beyond his merely apparent agreement with the outworn Truth which is independent of human thought, in contrast to the Will to Truth, no less ungovernable than cautious, of the Aryan research.

To which all Nazi students, good and true, are expected to leap to their feet and shout *Heil Hitler*! in emulation of the official raptures of a Nazi student monthly of July, 1936.

> His book points out where the limit of our knowledge lies, and whither the way into the future. It takes the last blemishes off science, which had been utterly desecrated by the Jewish influence and presents the eternal Aryan thought in its full purity. . . . The enemy will find the front of defense tightened. There is no room for men like Gumbel and Mierendorf, no more in science than in public life. We can only shout at them: Hands off German Physics! Many of them hope with Jewish slyness to revive their old ideas, the ideas of such traitors as Einstein, under a National Socialist disguise. These people are very much mistaken. No democratic poll on theoretical and experimental physics (which we call Jewish mathematics) will

[2] L. G. Montefiore, "The Spirit of the German Universities," London, 1936, pp. 6 to 10.
[3] *New York Times*, July 1, 1936.

help them. Our brigades, hardened in the years of fight, to-day form an iron block against any attempt at destruction.[4]

Professor Lenard's attacks on international science assumed sharper form when he endeavored to show a gathering of scholars that, since the time of Wilhelm II, Jews have systematically attempted to appropriate and pass off the products of Aryan brains as their own, charging that this was especially true in physics because most Nobel Prizes in that field had been won by Jews and "Semitically minded persons."[5]

By virtue of his contribution along these lines, an ingenious magazine article demonstrating that theoretical physics was a Jewish concoction, Dr. Willi Menzel was certainly adequately competent to be appointed, as he was in November, 1936, director of the central association of all German research scientists, an organization in control of funds for scientific scholars. But as a professor of armament technique in the Berlin Technical Institute at Charlottenburg, he was extraordinarily well qualified to assume that responsibility. A dispatch announcing his appointment reports that this "seems to indicate a further tendency to discipline German science and further concentration of its researches on miiltary and related problems."[6]

The scientific absurdities which German youth are being persuaded to believe extend even to mathematics. The *Deutsche Mathematik,* a low-priced propaganda journal subsidized by the German Research Society, provides a ready illustration of this.

Deutsche Mathematik gives a living picture of the general mathematical work of German folk-comrades (Volksgenossen). . . . We serve the German Way in Mathematics and wish to foster it. . . . Our work has value, in view of the fact that mathematical achievement develops more vigorously and therefore attains to great significance the deeper it is rooted in the racial idea.

The first article, "Studenten, in Front!" by Fritz Kubach of Heidelberg, the "Reichsleader of the German Student Body in the Department of Mathematics," attacks the idea that "mathematics can be treated as the prototype of pure science," because "if, in the closed ring of our National Socialist totalitarian position of science, such a breach be once successfully made, other positions will quickly fall and disintegration will proceed further." He admits that such concepts "bear the seeds of destruction of the National Socialist Weltanschauung with its claim to embrace completely our entire productivity and activity without exception and in every sphere." Complaining that there are still a large number of professors nurturing the seeds of destruction among students, Herr Kubach urges his readers to stimulate "the handling of general and fundamental questions of mathematics and Weltanschauung on a racial basis."

Manifestly, a science representing a peculiar mixture of hysteria and ethnological hallucination inevitably warps the society of which it is a basic part. This is especially true and dangerous for a régime which has as its military and political objective economic self-sufficiency possible only through the most advanced scientific techniques. Distorting science then becomes a boomerang for its sponsors. Recognizing these inherent dangers of Nazi mixture of politics with science, Dr. Ferdinand Sauerbruch, physician to the late President Hindenburg, professor at Marburg, Zurich, Munich and Berlin, has issued a warning to the National Socialist government to let science alone unless it wants to wreck it. He said:

Science does not need any scrubbing by outsiders. Science has always been the greatest of revolutionaries and has freed itself from weaknesses and mistakes. Science must remain true to itself.

We find ourselves to-day confronting great problems. Think alone of the Fuehrer's four-year plan. This duty that we have been called on to perform is a question of honor and confidence. Science will fulfill what is demanded of it on condition that it retain its freedom and independence in its work.

In spite of all necessary limitations, liberty remains an essential characteristic of science, and spiritual and intellectual freedom is a necessity for scientists.

Every true scientist desires to serve his nation. His work, however, can not be complete if it is merely a service to the nation. His research is not alone a creation of this immediate world, but it is closely related to eternal questions.[7]

M. B. SCHNAPPER

NEW YORK, N. Y.

[4] *International Relief Association Notes.*
[5] *Associated Press,* November 21, 1936.
[6] *New York Times,* November 15, 1936.
[7] *New York Times,* September 23, 1936.

QUOTATIONS

THE CHICAGO SCHOOLS

THE superintendent of schools, William H. Johnson, has announced substantial changes in the curriculum of both the elementary and the high schools, to take effect on February 1. The list of alterations is a long one, and it seems to indicate a number of departures in public education in this community.

One observable trend is the fruit of many years of study, here and elsewhere, in the capacities of the growing child at various ages. Everybody knows that a child of 12 can learn many things which very few children of 6 can master. Accordingly, nobody attempts to teach formal grammar or pole vaulting in the first grade. Pedagogs of recent years have sought to refine their judgments of children's capacities at various age levels. It is in consequence of these studies in the ability to absorb knowledge that the training in formal arithmetic is now to be postponed until the third grade and instruction in long division is to be delayed a half year, until the beginning of the fifth grade. Likewise, no attempt is to be made to teach children cursive writing before the third grade; instead, in writing they will use the printed forms of the letters.

These and similar changes have been dictated, it seems fair to assume, by experience and experiment. Nothing is gained and much may be lost by attempting to teach children facts and skills at an age at which only the fewest of them are able to profit from the teaching. Forcing them to undertake tasks beyond their capabilities serves only to make school odious.

The traditional curriculum was framed at a time when the majority of children dropped out of school about the fifth grade. It was then imperative that they be taught as much as possible before the fifth grade. Now, when almost all children go through the eighth grade and most of them continue into high school, the pressure is relaxed. A tempo more nearly in accord with the demonstrable capacities of the growing child can be adopted with benefit to him.

That trend we believe to be a sound one, but there is no need to rely upon belief alone. The effects of the new curriculum can be measured. The results attained should be subjected to careful and, above all, unbiased examination. If at graduation the children trained under the new regimen are found to be better equipped than those trained under the old one the new system can be pronounced a success. Otherwise it will be a failure.

The danger in the emphasis upon the capacities of the average child lies in the possibility that it may lead to defeating the purpose for which schools exist. School administrators may be encouraged to take their failures too lightly. They may find it easy to blame the incapacity of the child rather than their own incapacity to teach what the child must learn if he is to be of any account to himself and his community.

A glance at the changes in the high-school curriculum suggests that this danger is not wholly imaginary. Mathematics in high school is no longer to be compulsory. Credit is to be given for drawing and singing on the basis that credit is now given for algebra and history. A cleavage is to be made in the student body. Those who are bright or hope to go on to college are to receive one kind of training and the duller and those who do not expect to go to college are to receive others.

Presumably the purpose of these changes is to meet one of the most pressing and complex problems which school administrators have ever had to face. As a result of rising standards of living, advances in the school-leaving age, and a shortage of employment more and more children are going to high school. The high schools are overcrowded and there are many thousands of children enrolled in them who for one reason or another are unable to master the subjects which constitute the normal high-school curriculum. If attention is centered upon these backward pupils, the curriculum adapted to them and the pace of teaching set to meet their needs, the standard of the whole school system is inevitably lowered. If, on the other hand, high standards are retained, the backward pupils will be left hopelessly behind, will be required to repeat courses and will clog the schools.

Some solution of the dilemma must be found. Mr. Johnson, we gather, is trying to meet it by setting up what amounts to a dual high-school

system; but here again a danger lurks. The boy who can, with effort, master the more exacting high-school curriculum may be encouraged to take the easier course to his own and to the community's loss.

The test of Mr. Johnson's innovations in both the elementary and the high schools will come in administration. The new curriculum may prove to be an improvement if all who are concerned with it are determined to raise rather than lower the standards of accomplishment now required of the pupils. If the new curriculum becomes a convenient excuse for lowering standards, the change will be all for the worse.

One more point may be added. Many of the problems of the high schools result from their huge size. The ideal high school would have fewer than a thousand pupils. There are high schools in Chicago with more than 5,000. In such schools the individual pupil is lost. It is altogether probable that more good would be accomplished by breaking these schools into smaller units than by curricular changes, valuable as these may be.—*The Chicago Tribune.*

REPORTS

ACTIVITIES OF THE COMMONWEALTH FUND

IN its annual report for the year ending September 30, 1936, made public on January 18, the Commonwealth Fund records appropriations amounting to $1,967,153.26, intended, in the words of its founder, Mrs. Stephen V. Harkness, "to do something for the welfare of mankind."

More than two thirds of the total was devoted to the betterment of health. Grants were made for public health service to rural communities, rural hospitals, medical education and medical research. Postgraduate education in medicine was emphasized, the fund believing that such work is of major importance in improving the quality of medical service.

For the first time in several years a large share of these appropriations went to educational institutions in New York City. The largest of these was a conditional gift of $250,000 to the College of Physicians and Surgeons of Columbia University, to meet part of the cost of enlarging laboratory facilities at the Columbia-Presbyterian Medical Center for graduate teaching in the medical specialties. The fund also continued to help in financing a study, sponsored by the New York Academy of Medicine, of medical education in New York hospitals.

As part of its mental hygiene program the fund contributed to educational activities at the Babies Hospital and the New York Hospital. A similar project at the Children's Hospital in Boston is also being supported by the fund.

The fund continued to work through various channels for the improvement of medical practice in rural areas, particularly in Tennessee, Mississippi and the northern New England states. In all, 379 scholarships have now been awarded to physicians for postgraduate study at Harvard, Tulane, Vanderbilt and other medical schools.

In the belief that improvement in rural medical service will be hastened if newly trained physicians enter practice in country districts, the fund offers scholarships to undergraduates in medicine at Tulane, Vanderbilt and Tufts. Thirty-nine scholarship holders have now been graduated and seven have completed their internships and have entered practice, in accordance with the terms of the grant, in towns of less than 5,000. Twelve or more well-trained young physicians will be ready for rural practice each year in the three states, Mississippi, Tennessee and Massachusetts, where these scholarships are offered.

Nine years ago the fund began to build, with local cooperation, small general hospitals in country communities. After six had been completed, the depression interrupted the building program, but this has now been resumed. The seventh hospital, in Kingsport, Tennessee, has been open a year and more than 5,000 persons in a population of approximately 21,000 have already subscribed to a prepayment plan entitling the subscriber to free hospital care or a discount on hospital charges. An eighth hospital is nearing completion in Tupelo, Mississippi, and a ninth has been awarded to Ada, Oklahoma.

During the past year state health department service has been emphasized as the best means of improving local health work. In Tennessee, Mississippi and Massachusetts traveling units have worked under state auspices to supervise

and strengthen local health departments or to deal with particular health problems such as communicable disease and tuberculosis. The fund has also helped to finance the development of health departments in two counties in Tennessee, two counties in Mississippi and two town-unions in Massachusetts. These areas are used as demonstration and training centers. In New Mexico the fund has continued to help spread nursing service over the states.

The fund made its first appropriation during the year to a newly organized study of high-blood pressure uncomplicated by organic disease, to be directed by Dr. Warfield T. Longcope at the Johns Hopkins University School of Medicine.

The fund continued to offer a group of fellowships for British graduate students at American universities, 31 having been appointed this year to spend two years in this country as guests of the fund. The distinguished physicist, William Lawrence Bragg, of the University of Manchester, has been elected to the British Committee of Award which selects these fellows, succeeding Sir Hector Hetherington, vice-chancellor of the University of Glasgow.

Appropriations were made for the training of psychiatrists and psychiatric social workers as a contribution to the progress of mental hygiene in the United States. The fund shared in the support of a central bureau of information about child guidance, under the auspices of the National Committee for Mental Hygiene and of a study of psychiatric education. Gifts were made to the Welfare Council and to the Family Welfare Committee of New York City.

At the close of the fiscal year, September 30, 1936, the invested assets of the fund had a book value of $42,607,226.31 and a market value of $41,039,182.93. The directors of the fund are as follows: Edward S. Harkness, president; Malcolm P. Aldrich, Samuel H. Fisher, William M. Kingsley, Robert A. Lovett, George Welwood Murray and Dean Sage.

EDUCATIONAL RESEARCH AND STATISTICS

STATUS OF THE JUNIOR COLLEGE IN THE UNITED STATES, 1936–37

CONTINUED increase in student enrolment in the junior colleges of the country, as well as in the number of these institutions as compared with the figures reported in SCHOOL AND SOCIETY[1] a year ago, is shown by reports received from this group of institutions of higher education up to December 1, 1936.

The total number of institutions reported shows a slight increase from 519 to 528, while the enrolment as reported has increased from 122,311 to 129,106, a significant increase of 5.6 per cent.

Detailed information concerning each of the 528 institutions mentioned above may be found in the "Directory of the Junior College, 1937," compiled by Dr. Doak S. Campbell, of George Peabody College, secretary of the American Association of Junior Colleges, and published in the issue of the *Junior College Journal* for January. 1937. A synopsis of some of the more significant facts and summaries may be of general interest.

[1] W. C. Eells, SCHOOL AND SOCIETY, 43: 160–62, February 1, 1936.

The number of junior colleges in continental United States and enrolment in them, as shown by successive issues of the directory for the past ten years, has been as given in Table 1.

TABLE 1
GROWTH OF THE JUNIOR COLLEGE FROM 1928 TO 1937

Year	Number	Enrolment	Increase (Per cent.)
1928 ...	408	50,529	...
1929 ...	405	54,438	7.7
1930 ...	429	67,627	24.2
1931 ...	436	74,088	9.6
1932 ...	469	97,631	31.8
1933 ...	493	96,555	−1.1
1934 ...	514	103,592	7.2
1935 ...	522	107,807	4.1
1936 ...	519	122,514	13.6
1937 ...	528	129,106	5.6

Since 1928 there has been an increase of 29 per cent. in the number of junior colleges reported and an increase of 156 per cent. in the enrolment in them.

PUBLIC AND PRIVATE INSTITUTIONS

Of the entire group of 528 junior colleges, 229 (43 per cent.) are publicly controlled institutions, and 299 (57 per cent.) are under private control. The publicly controlled institutions,

however, have much the greater proportion of the enrolment. Seventy per cent. of the enrolment, or 90,437, is found in the publicly controlled junior colleges, as compared with 38,669 in the privately controlled institutions. Increased enrolments are found in the publicly controlled junior colleges in 24 states and decreased enrolments in 10 states, the net increase being 7,736, or 9.4 per cent. The largest increase in enrolment in publicly controlled institutions occurred in California with a growth of 5,840. Slight losses, however, this year are found in the private junior college field. Increased enrolments in these institutions are found in 23 states and decreased enrolments in 19 states, the net decrease being 941 or 2.5 per cent. This is in marked contrast with the distinct gain of 20 per cent. reported last year.

Distribution by States

The number and enrolment in each type of junior colleges for each state are shown in Table 2.

California continues to lead in total number of junior colleges with 57; Texas is next with 45; followed by Iowa with 37, Oklahoma with 24, Illinois with 21, and Mississippi, Georgia, Kansas, Missouri and North Carolina with 20 each—ten states with twenty or more each. Publicly controlled institutions are found in 34 states, those under private auspices in 41 states.

California also leads in enrolment, with 42,372, almost one third of the reported junior college enrolment of the country. Over 97 per cent. of the California enrolment is in the 42 public junior colleges in the state, which thus average almost one thousand students each. Fifteen of them have enrolments in excess of 1,000. Texas is second with 11,389, and Illinois third with 8,482.

Types of Institutions

The junior college is prevailingly a coeducational institution, 389 (74 per cent.) being reported of this type. Three institutions for men are reported in the publicly controlled group, all the others being coeducational. In the privately controlled group, 38 are for men, 98 for women and 163 coeducational.

Fifty-six per cent. of the privately controlled colleges are reported as under denominational

TABLE 2

NUMBER AND ENROLMENT IN PUBLICLY AND PRIVATELY CONTROLLED JUNIOR COLLEGES IN THE UNITED STATES. SUMMARY BY STATES.

State	Total		Public		Private	
	No.	Enrolment	No.	Enrolment	No.	Enrolment
Alabama	8	772	1	224	7	548
Arizona	2	847	2	847	0	...
Arkansas	9	1,970	6	1,757	3	213
California	57	42,372	42	41,345	15	1,027
Canal Zone	1	114	1	114	0	...
Colorado	5	841	1	300	4	541
Connecticut	6	514	0	...	6	514
Delaware	0	...	0	...	0	...
District Columbia	9	773	0	...	9	773
Florida	6	1,298	1	75	5	1,223
Georgia	20	3,911	11	2,707	9	1,204
Idaho	6	1,871	2	1,294	4	577
Illinois	21	8,482	9	6,502	12	1,980
Indiana	7	501	1	127	6	374
Iowa	37	3,005	27	2,047	10	958
Kansas	20	3,917	11	3,264	9	653
Kentucky	15	2,368	0	...	15	2,368
Louisiana	7	722	1	453	6	269
Maine	2	181	0	...	2	181
Maryland	6	468	0	...	6	468
Massachusetts	10	1,108	0	...	10	1,108
Michigan	12	2,953	9	2,640	3	313
Minnesota	13	2,263	11	2,081	2	182
Mississippi	20	4,175	11	3,281	9	894
Missouri	20	4,534	7	2,183	13	2,351
Montana	3	524	2	432	1	92
Nebraska	7	742	2	223	5	519
Nevada	0	...	0	...	0	...
New Hampshire	4	448	0	...	4	448
New Jersey	9	1,784	5	1,318	4	466
New Mexico	2	674	2	674	0	...
New York	6	694	0	...	6	694
North Carolina	20	3,654	1	137	19	3,517
North Dakota	2	281	2	281	0	...
Ohio	7	3,017	1	1,468	6	1,549
Oklahoma	24	3,625	21	3,456	3	169
Oregon	3	273	0	...	3	273
Pennsylvania	14	1,594	4	412	10	1,182
Rhode Island	0	...	0	...	0	...
South Carolina	4	519	0	...	4	519
South Dakota	4	335	1	73	3	262
Tennessee	12	2,562	2	883	10	1,679
Texas	45	11,389	23	7,208	22	4,181
Utah	5	1,498	4	1,362	1	136
Vermont	2	202	0	...	2	202
Virginia	14	1,988	0	...	14	1,988
Washington	11	1,043	3	457	8	586
West Virginia	5	1,183	1	108	4	1,075
Wisconsin	6	1,117	1	704	5	413
Wyoming	0	...	0	...	0	...
Total	**528**	**129,106**	**229**	**90,437**	**299**	**38,669**

auspices, the Methodists leading with 39 institutions, followed by Baptists with 35; Catholics, 24; Presbyterians, 18; Lutherans, 18; Episcopalians, 5; Seventh-Day Adventists, 5; and 14 other denominational groups with one to four each, 22.

Twenty-five of the institutions listed (4.7 per cent.) are Negro junior colleges. All but five of these are privately controlled institutions.

A considerable variety of types of administrative organization is found, these types being summarized as far as reported in Table 3. The percentage distribution for the same six types last year, based upon 517 institutions, is added for comparison. No significant changes are

TABLE 3
DISTRIBUTION OF JUNIOR COLLEGES IN THE UNITED STATES ACCORDING TO TYPE OF ADMINISTRATIVE ORGANIZATION

Type	Number 1937	Percentage 1937	Percentage 1936
6-year ...	18	3.5	4.6
5-year ...	0	0.0	0.4
4-year ...	22	4.3	4.1
3-year ...	2	0.4	0.4
2-year ...	468	91.4	90.1
1-year ...	2	0.4	0.4

found in the relative proportions of the different types of institutions in the two years, the two-year type now including over 90 per cent. of the junior colleges of the country.

SIZE OF COLLEGES

The size of the 507 colleges for which enrolments are reported is summarized in Table 4.

TABLE 4
DISTRIBUTION OF JUNIOR COLLEGES IN THE UNITED STATES ACCORDING TO STUDENT ENROLMENT

Enrolment	Number	Enrolment	Number
0– 49	65	800– 899	4
50– 99	124	900– 999	1
100–199	147		
200–299	63	1,000–1,999	19
300–399	44	2,000–2,999	3
400–499	22	3,000–3,999	0
500–599	8	4,000–4,999	2
600–699	4	5,000–5,999	1
700–799	3		

While the junior college is still a relatively small institution, judged in terms of its individual units, yet it is growing steadily. In 1937 there were 108 which had enrolments exceeding 300 students, as compared with only 106 of this size last year, and only 35 in 1930. Twenty-two now exceed 1,000 students, as compared with 16 last year. The largest of the publicly controlled institutions is Los Angeles Junior College with 5,113 students last year, while the largest of those under private auspices is Stephens College, Missouri, with 848 students.

The average enrolment in the publicly controlled institutions for which reports have been received is 406, as compared with 388 a year ago; in those under private control, 136, as compared with 135 a year ago.

ENROLMENT BY CLASSES

Enrolment by classes is summarized in Table 5, the percentage distribution for last year being added for comparison.

TABLE 5
ENROLMENT BY CLASSES IN JUNIOR COLLEGES 1934–35 AND 1935–36

Class	Number 1935–36	Percentage 1935–36	Percentage 1934–35
Freshmen ...	70,930	54.9	55.8
Sophomores .	39,759	30.8	31.7
Specials	18,417	14.3	12.5

If the special students are omitted from consideration, 36 out of each 100 regular students were sophomores, the same proportion as in 1934–35.

NUMBER OF INSTRUCTORS

The directory reports 5,171 full-time instructors and 3,456 on a part-time basis in 505 junior colleges, as compared with 5,037 full-time and 3,312 part-time last year. This is an average of 17.1 instructors per institution, as compared with 16.6 last year. If it be assumed that two part-time instructors are equivalent to one working full-time, then there are the equivalent of 6,899 full-time instructors in these 505 colleges, or an average of 13.7 full-time instructors per institution. Since the average enrolment per institution is 255 students, the faculty-student ratio in the average institution is one to nineteen, as compared with one to eighteen last year.

CHANGES IN ADMINISTRATORS

A comparison of the 1937 and 1936 directories reveals a change in the administrative heads on the part of 55 junior colleges, or 11.0 per cent. of the entire group, as compared with 14.8 per cent. last year. In the publicly controlled junior colleges the change was 10.9 per cent., in the privately controlled ones, 11.1 per cent.

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WASHINGTON, D. C.

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